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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/595,412	08/15/2006	Yoko Yamaguchi	WAS-NEG-P1/2F09/027-US-P	8924
44702	7590	03/23/2010		
OSTRAGER CHONG FLAHERTY & BROITMAN PC			EXAMINER	
570 LEXINGTON AVENUE			PAK, JOHN D	
FLOOR 17				
NEW YORK, NY 10022-6894			ART UNIT	PAPER NUMBER
			1616	
			NOTIFICATION DATE	DELIVERY MODE
			03/23/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/595,412

Applicant(s)

YAMAGUCHI ET AL.

Examiner

John Pak

Art Unit

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☐ Claim(s) ____ is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☒ Claim(s) 1-15 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF 298)
Paper No(s)/Mail Date ____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

Claims 1-15 are pending in this application.

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted (i.e. elect one of Groups I, II, III, IV or V).

Group I, claims 1-7 (in part), 8-10, drawn to a method for adjusting a particle size of retinoic acid nanoparticles comprising micelles of retinoic acid coated with calcium carbonate and having an average particle size of 5-300 nm. Group I, as it is the first claimed invention under lack of unity rules, includes the first product made. Therefore, Group I also includes claims 11 (in part) and 12-13.

Group II, claims 1-7 (in part), drawn to a method for adjusting a particle size of retinoic acid nanoparticles comprising micelles of retinoic acid coated with zinc carbonate and having an average particle size of 5-300 nm.

Group III, claims 1-7 (in part), drawn to a method for adjusting a particle size of retinoic acid nanoparticles comprising micelles of retinoic acid coated with calcium phosphate and having an average particle size of 5-300 nm.

Group IV, claims 11 (in part), 14, drawn to zinc carbonate-coated nanoparticles having an average particle size of 5-300 nm and comprising retinoic acid micelles coated with zinc carbonate.

Group V, claims 11 (in part), 15, calcium phosphate-coated nanoparticles having an average particle size of 5-300 nm and comprising retinoic acid micelles coated with calcium phosphate.

The inventions listed as Groups I to V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons.

Under lack of unity rules, unity of invention exists only when there is a technical relationship among the claimed inventions involving one or more of the same or corresponding special technical features. The expression "special technical features" is defined as meaning those technical features that define a contribution which each of the inventions, considered as a whole, makes over the prior art. The "contribution over the prior art" is considered with respect to novelty and inventive step.

Here, a 2002 article by Yamaguchi et al. (Document 3 on page 2 of the IDS of 7/8/2007) discloses nanoparticles comprising micelles of retinoic acid with a core-shell structure in which calcium carbonate coats the surface of the retinoic acid. The nanoparticles are prepared by adding CaCl_2 and NaCO_3 into an aqueous solution in which retinoic acid is in the form of micelles. Diameter of the nanoparticles is reported as approximately 125-164 nm.

Clearly, nanoparticles comprising micelles of retinoic acid coated with calcium carbonate and having an average particle size as claimed were known prior to the effective filing date of this application, and method for preparing said nanoparticles was known as well. Further, WO 93/15720 (also cited in the IDS of 7/8/2007) appears to distinguish calcium from other metals such as zinc and carbonates from phosphates in stabilizing liposomes (page 3, lines 6-24). Thus, there is no technical relationship among the claimed inventions involving one or more of the same or corresponding special technical feature, which special technical feature defines a contribution over the prior art.

Accordingly, the inventions lack a unity of invention and applicant is required to elect one of the inventions for examination on the merits.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to John Pak whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John Pak/
Primary Examiner, Art Unit 1616